

```

431254 1-3/MAC
L3      40862 C 1-3/MAC
        (C/MAC (P) 1-3/MAC)

=> s si 1-3/mac
        324837 SI/MAC
        431254 1-3/MAC
L4      80868 SI 1-3/MAC
        (SI/MAC (P) 1-3/MAC)

=> s mg .001-1/mac
        58491 MG/MAC
        480333 .001-1/MAC
L5      28460 MG .001-1/MAC
        (MG/MAC (P) .001-1/MAC)

=> s ti .001-1/mac
        109972 TI/MAC
        480333 .001-1/MAC
L6      52568 TI .001-1/MAC
        (TI/MAC (P) .001-1/MAC)

=> s s .00001-1/mac
        20736 S/MAC
        480333 .00001-1/MAC
L7      18869 S .00001-1/MAC
        (S/MAC (P) .00001-1/MAC)

=> d his

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(FILE 'HOME' ENTERED AT 13:39:12 ON 22 JUN 2003)

FILE 'REGISTRY' ENTERED AT 13:39:21 ON 22 JUN 2003

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L1      28976 S FE 64-67/MAC
L2      12630 S NI 33-37/MAC
L3      40862 S C 1-3/MAC
L4      80868 S SI 1-3/MAC
L5      28460 S MG .001-1/MAC
L6      52568 S TI .001-1/MAC
L7      18869 S S .00001-1/MAC

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=> s mn .01-1.5/mac
        302776 MN/MAC
        509199 .01-1.5/MAC
L8      233319 MN .01-1.5/MAC
        (MN/MAC (P) .01-1.5/MAC)

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=> s l1 and l2 and l3 and l4 and l5 and l6
L9      2 L1 AND L2 AND L3 AND L4 AND L5 AND L6

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=> d all 1-2

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L9      ANSWER 1 OF 2  REGISTRY  COPYRIGHT 2003 ACS
RN      169932-92-7  REGISTRY
CN      Iron alloy, base, Fe 21-74,Ni 25-40,Co 0-25,C 0.3-2.5,Al 0.1-2,Nb 0.1-2,Ta
        0.1-2,Ti 0.1-2,Si 0-2,Mn 0-1,Mg 0-0.1 (9CI)  (CA INDEX NAME)
MF      C . Al . Co . Fe . Mg . Mn . Nb . Ni . Si . Ta . Ti
CI      AYS
SR      CA
LC      STN Files:  CA, CAPLUS

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Component      Component      Component
                Percent      Registry Number
=====+=====+=====

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Fe	21	-	74	7439-89-6
Ni	25	-	40	7440-02-0
Co	0	-	25	7440-48-4
C	0.3	-	2.5	7440-44-0
Al	0.1	-	2	7429-90-5
Nb	0.1	-	2	7440-03-1
Ta	0.1	-	2	7440-25-7
Ti	0.1	-	2	7440-32-6
Si	0	-	2	7440-21-3
Mn	0	-	1	7439-96-5
Mg	0	-	0.1	7439-95-4

1 REFERENCES IN FILE CA (1957 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

# REFERENCE 1

AN 123:293081 CA  
TI Cast iron-nickel alloys for high-strength articles with decreased thermal expansion  
IN Nishimura, Takanobu; Suzuki, Motoo; Kanbara, Naoto  
PA Tokyo Shibaura Electric Co, Japan  
SO Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM C22C037-08  
ICS C21D005-00  
CC 55-2 (Ferrous Metals and Alloys)  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07179984	A2	19950718	JP 1993-324369	19931222
PRAI	JP 1993-324369		19931222		
AB	The high-Ni cast iron contains Ni aluminide intermetallic compds. pptd. in the microstructure for hardening and decreased thermal expansion. The Fe-Ni alloys contain C 0.3-2.5, Si .ltoreq.2.0, Mn .ltoreq.1.0, Mg .ltoreq.0.1, Ni 25-40, Co 0-25, Al 0.1-2.0, and optionally Ti 0.1-2.0, Nb 0.1-2.0, and/or Ta 0.1-2.0%. The castings are finished by soln. treating at 800-1000.degree., quenching, and aging at 450-750.degree..				
ST	cast iron nickel alloy heat treatment; nickel aluminide pptn iron alloy casting				
IT	Cast metals and alloys				
	RL: TEM (Technical or engineered material use); USES (Uses) (iron-nickel alloys; cast iron-nickel alloys for high-strength articles with dispersed aluminide particles)				
IT	169684-53-1	169684-54-2	169684-55-3	169684-56-4	169684-57-5
	169684-58-6	169684-59-7	169932-91-6	169932-92-7	
	RL: TEM (Technical or engineered material use); USES (Uses) (cast; iron-nickel alloy castings for high-strength articles with decreased thermal expansion)				
IT	12003-81-5				
	RL: MOA (Modifier or additive use); USES (Uses) (pptd. dispersion; iron-nickel alloy castings for high-strength articles with dispersed aluminide particles)				

IS9 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2003 ACS  
RN 55192-90-0 REGISTRY  
CN Iron alloy, base, Fe 27-98, Ni 0-36, Cu 0-8, Al 0-7, Mn 0-7, C 1.5-6.5, Si 0.5-6, Ti 0-2, B 0-0.1, C 0-0.1, Mg 0-0.1 (9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN Aluminum alloy, nonbase, Fe 27-98, Ni 0-36, Cu 0-8, Al 0-7, Mn 0-7, C 1.5-6.5, Si 0.5-6, Ti 0-2, B 0-0.1, Ce 0-0.1, Mg 0-0.1  
CN Carbon alloy, nonbase, Fe 27-98, Ni 0-36, Cu 0-8, Al 0-7, Mn 0-7, C 1.5-6.5, Si

0.5-6,Ti 0.2,B 0-0.1,Ce 0-0.1,Mg 0-0.1  
 CN Copper alloy, nonbase, Fe 27-98,Ni 0-36,Cu 0-8,Al 0-7,Mn 0-7,C 1.5-6.5,Si  
 0.5-6,Ti 0-2,B 0-0.1,Ce 0-0.1,Mg 0-0.1  
 CN Manganese alloy, nonbase, Fe 27-98,Ni 0-36, Cu 0-8,Al 0-7,Mn 0-7,C  
 1.5-6.5,Si 0.5-6,Ti 0-2,B 0-0.1,Ce 0-0.1,Mg 0-0.1  
 CN Manganese alloy, nonbase, Fe 27-98,Ni 0-36,Cu 0-8,Al 0-7,Mn 0-7,C  
 1.5-6.5,Si 0.5-6,Ti 0-2,B 0-0.1,Ce 0-0.1,Mg 0-0.1  
 CN Silicon alloy, nonbase, Fe 27-98,Ni 0-36,Cu 0-8,Al 0-7,Mn 0-7,C 1.5-6.5,Si  
 0.5-6,Ti 0-2,B 0-0.1,Ce 0-0.1,Mg 0-0.1  
 CN Titanium alloy, nonbase, Fe 27-98,Ni 0-36,Cu 0-8,Al 0-7,Mn 0-7,C  
 1.5-6.5,Si 0.5-6,Ti 0-2,B 0-0.1,Ce 0-0.1,Mg 0-0.1  
 MF C . Al . B . Ce . Cu . Fe . Mg . Mn . Ni . Si . Ti  
 CI AYS  
 LC STN Files: CA, CAPLUS

Component	Component Percent	Component Registry Number
Fe	27 - 98	7439-89-6
Ni	0 - 36	7440-02-0
Cu	0 - 8	7440-50-8
Al	0 - 7	7429-90-5
Mn	0 - 7	7439-96-5
C	1.5 - 6.5	7440-44-0
Si	0.5 - 6	7440-21-3
Ti	0 - 2	7440-32-6
B	0 - 0.1	7440-42-8
Ce	0 - 0.1	7440-45-1
Mg	0 - 0.1	7439-95-4

1 REFERENCES IN FILE CA (1957 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

#### REFERENCE 1

AN 82:143614 CA  
 TI Sintered steel alloys containing silicon carbide  
 IN Frehn, Fritz  
 PA Deutsche Edelstahlwerke A.-G.  
 SO Ger. Offen., 7 pp.  
 CODEN: GWXXBX  
 DT Patent  
 LA German  
 IC C22C  
 CC 55-4 (Ferrous Metals and Alloys)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2318414	A1	19741031	DE 1973-2318414	19730412
PRAI	DE 1973-2318414		19730412		
AB	Sintered alloys of high wear resistance and good damping properties, useful for machine and engine parts, contain TiC 25-33, C(bonded) 0.50, free C 3.0, Si 2.0-3.5, Ni 1.5% and the rest Fe. They have a Rockwell C hardness of 60-4, and damping value Q-1 of >30 times. 10-5.				
ST	titanium carbide sintered steel; nickel silicon carbide steel; sintered alloy carbide steel; wear resistant sintered steel; vibration damping sintered steel				
IT	Vibration (damping, by wear-resistant titanium carbide alloys, for engine parts)				
IT	55192-89-7		55192-90-0		
RL	USES (Uses) (sintered wear-resistant, with good vibration-damping for engine parts)				

=> log hold y  
'Y' IS NOT VALID HERE  
For an explanation, enter "HELP LOGOFF".

=> log hold		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	44.70	44.91
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-1.24	-1.24

SESSION WILL BE HELD FOR 60 MINUTES  
STN INTERNATIONAL SESSION SUSPENDED AT 13:43:07 ON 22 JUN 2003

Welcome to STN International! Enter x:x

LOGINID:sssptal101sxv

PASSWORD:

\* \* \* \* \* RECONNECTED TO STN INTERNATIONAL \* \* \* \* \*  
SESSION RESUMED IN FILE 'REGISTRY' AT 13:45:17 ON 22 JUN 2003  
FILE 'REGISTRY' ENTERED AT 13:45:17 ON 22 JUN 2003  
COPYRIGHT (C) 2003 American Chemical Society (ACS)

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	44.70	44.91
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-1.24	-1.24

=> s l1 and l2 and l3 and l4 and l5 and l6 and l7 and l8  
L10 0 L1 AND L2 AND L3 AND L4 AND L5 AND L6 AND L7 AND L8

=> s l1 and l2 and l3 and l6 and l7 and l8  
L11 0 L1 AND L2 AND L3 AND L6 AND L7 AND L8

=> s l1 and l2 and l6 and l7 and l8  
L12 1 L1 AND L2 AND L6 AND L7 AND L8

=> d all

L12 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS  
RN 62700-03-2 REGISTRY  
CN Iron alloy, base, Fe 11-82, Ni 3.9-39, Cr 13-25, Co 0-7.6, Mn 0.6-3.9, W  
0-2.8, Mo 0-2.7, Cu 0-2.5, Si 0.2-2.2, Nb 0-0.9, Ti 0-0.8, C 0-0.5, N 0-0.4, S  
0-0.3, Al 0-0.1 (9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN Chromium alloy, nonbase, Fe 11-82, Ni 3.9-39, Cr 13-25, Co 0-7.6, Mn 0.6-3.9, W  
0-2.8, Mo 0-2.7, Cu 0-2.5, Si 0.2-2.2, Nb 0-0.9, Ti 0-0.8, C 0-0.5, N 0-0.4, S  
0-0.3, Al 0-0.1  
CN Cobalt alloy, nonbase, Fe 11-82, Ni 3.9-39, Cr 13-25, Co 0-7.6, Mn 0.6-3.9, W  
0-2.8, Mo 0-2.7, Cu 0-2.5, Si 0.2-2.2, Nb 0-0.9, Ti 0-0.8, C 0-0.5, N 0-0.4, S  
0-0.3, Al 0-0.1  
CN Copper alloy, nonbase, Fe 11-82, Ni 3.9-39, Cr 13-25, Co 0-7.6, Mn 0.6-3.9, W  
0-2.8, Mo 0-2.7, Cu 0-2.5, Si 0.2-2.2, Nb 0-0.9, Ti 0-0.8, C 0-0.5, N 0-0.4, S  
0-0.3, Al 0-0.1  
CN Manganese alloy, nonbase, Fe 11-82, Ni 3.9-39, Cr 13-25, Co 0-7.6, Mn  
0.6-3.9, W 0-2.8, Mo 0-2.7, Cu 0-2.5, Si 0.2-2.2, Nb 0-0.9, Ti 0-0.8, C 0-0.5, N

0-0.4,S 0-0.3,Al 0-0.1  
 CN Molybdenum alloy, nonbase, Fe 11-82,Ni 3.9-39,Cr 13-25,Co 0-7.6,Mn 0.6-3.9,W 0-2.8,Mo 0-2.7,Cu 0-2.5,Si 0.2-2.2,Nb 0-0.9,Ti 0-0.8,C 0-0.5,N 0-0.4,S 0-0.3,Al 0-0.1  
 CN Nickel alloy, nonbase, Fe 11-82,Ni 3.9-39,Cr 13-25,Co 0-7.6,Mn 0.6-3.9,W 0-2.8,Mo 0-2.7,Cu 0-2.5,Si 0.2-2.2,Nb 0-0.9,Ti 0-0.8,C 0-0.5,N 0-0.4,S 0-0.3,Al 0-0.1  
 CN Silicon alloy, nonbase, Fe 11-82,Ni 3.9-39,Cr 13-25,Co 0-7.6,Mn 0.6-3.9,W 0-2.8,Mo 0-2.7,Cu 0-2.5,Si 0.2-2.2,Nb 0-0.9,Ti 0-0.8,C 0-0.5,N 0-0.4,S 0-0.3,Al 0-0.1  
 CN Tungsten alloy, nonbase, Fe 11-82,Ni 3.9-39,Cr 13-25,Co 0-7.6,Mn 0.6-3.9,W 0-2.8,Mo 0-2.7,Cu 0-2.5,Si 0.2-2.2,Nb 0-0.9,Ti 0-0.8,C 0-0.5,N 0-0.4,S 0-0.3,Al 0-0.1  
 MF C . Al . Co . Cr . Cu . Fe . Mn . Mo . N . Nb . Ni . S . Si . Ti . W  
 CI AYS  
 LC STN Files: CA, CAPLUS

Component	Component Percent	Component Registry Number
Fe	11 - 82	7439-89-6
Ni	3.9 - 39	7440-02-0
Cr	13 - 25	7440-47-3
Co	0 - 7.6	7440-48-4
Mn	0.6 - 3.9	7439-96-5
W	0 - 2.8	7440-33-7
Mo	0 - 2.7	7439-98-7
Cu	0 - 2.5	7440-50-8
Si	0.2 - 2.2	7440-21-3
Nb	0 - 0.9	7440-03-1
Ti	0 - 0.8	7440-32-6
C	0 - 0.5	7440-44-0
N	0 - 0.4	17778-88-0
S	0 - 0.3	7704-34-9
Al	0 - 0.1	7429-90-5

1 REFERENCES IN FILE CA (1957 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

#### REFERENCE 1

AN 86:159754 CA  
 TI Resistance to oxidation at elevated temperatures of a number of alloy steels  
 AU Truman, J. E.; Pirt, K. R.  
 CS Brown-Firth Res. Lab., Sheffield, UK  
 SO British Corrosion Journal (1976), 11(4), 188-94  
 CODEN: BCRJA3; ISSN: 0007-0599  
 DT Journal  
 LA English  
 CC 56-8 (Nonferrous Metals and Alloys)  
 AB Twelve com. nonstainless steels of C and low-alloy types, 17 com. martensitic stainless steels, 11 com. ferritic stainless steels, 26 com. austenitic stainless steels, 4 com. Ni-base alloys, and 7 exptl. steels contg. 1.45-30.16% Cr were subjected to cyclic oxidn. tests in natural gas combustion products (mixts. of N, O, CO<sub>2</sub>, and steam) at various temps. and std. heat treatments. Oxidn. resistances are expressed in terms of breakdown-temp. ranges and temps. for scaling indexes of 1, 5, and 10. Each specimen was subjected to 7 heating cycles of 6 h each followed by cooling, scale collection, and weighing. Tests were conducted at 50.degree. intervals over ranges such that the scaling indexes ranged from low to high values. The beneficial effects of addns. of Cr up to 30% and of addns. of Si and/or Al to Cr steels were confirmed. Co, Cu, Mo, V, Nb, Ti, and N had little effect. Mn was detrimental to Cr steels and so was C



in some cases. Ni enhanced oxidn. resistance in some cases, but was detrimental in others. S in free-machining stainless steels counteracted the effects of high Mn contents.

ST oxidn resistance nickel alloy steel; stainless steel oxidn resistance; scaling nickel alloy steel

IT Scale (coating)  
(formation of, on nickel alloys and steels at high temp. in natural gas combustion products)

IT Combustion gases  
(from natural gas, oxidn. and scaling by, of nickel alloys and steels at high temp.)

IT 7704-34-9, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(oxidation and scaling resistance of free-machining steels contg.)

IT 62699-99-4, reactions 62700-00-9 62700-01-0 62700-02-1 62700-03-2  
62700-04-3 62700-05-4 62700-06-5 62700-07-6 62712-99-6  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(oxidn. and scaling of, by natural gas combustion products at high temp.)

IT 7429-90-5, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(oxidn. and scaling resistance of chromium steels contg.)

=> d his full

(FILE 'HOME' ENTERED AT 13:39:12 ON 22 JUN 2003)

FILE 'REGISTRY' ENTERED AT 13:39:21 ON 22 JUN 2003

L1	28976	SEA	PLU=ON	FE	64-67/MAC
L2	12630	SEA	PLU=ON	NI	33-37/MAC
L3	40862	SEA	PLU=ON	C	1-3/MAC
L4	80868	SEA	PLU=ON	SI	1-3/MAC
L5	28460	SEA	PLU=ON	MG	.001-1/MAC
L6	52568	SEA	PLU=ON	TI	.001-1/MAC
L7	18869	SEA	PLU=ON	S	.00001-1/MAC
L8	233319	SEA	PLU=ON	MN	.01-1.5/MAC
L9	2	SEA	PLU=ON	L1 AND L2 AND L3 AND L4 AND L5 AND L6 D ALL 1-2	
L10	0	SEA	PLU=ON	L1 AND L2 AND L3 AND L4 AND L5 AND L6 AND L7 AND L8	
L11	0	SEA	PLU=ON	L1 AND L2 AND L3 AND L6 AND L7 AND L8	
L12	1	SEA	PLU=ON	L1 AND L2 AND L6 AND L7 AND L8 D ALL	

FILE HOME

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 20 JUN 2003 HIGHEST RN 534773-28-9

DICTIONARY FILE UPDATES: 20 JUN 2003 HIGHEST RN 534773-28-9

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties

in the CAS Registry File, for complete details:  
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> s l1 and l2 and l3 and l4 and l5 and l6 and l7  
L13 0 L1 AND L2 AND L3 AND L4 AND L5 AND L6 AND L7

=> s l1 and l2 and l5 and l6 and l7  
L14 0 L1 AND L2 AND L5 AND L6 AND L7

=> d his full

(FILE 'HOME' ENTERED AT 13:39:12 ON 22 JUN 2003)

FILE 'REGISTRY' ENTERED AT 13:39:21 ON 22 JUN 2003

L1	28976	SEA PLU=ON	FE 64-67/MAC
L2	12630	SEA PLU=ON	NI 33-37/MAC
L3	40862	SEA PLU=ON	C 1-3/MAC
L4	80868	SEA PLU=ON	SI 1-3/MAC
L5	28460	SEA PLU=ON	MG .001-1/MAC
L6	52568	SEA PLU=ON	TI .001-1/MAC
L7	18869	SEA PLU=ON	S .00001-1/MAC
L8	233319	SEA PLU=ON	MN .01-1.5/MAC
L9	2	SEA PLU=ON	L1 AND L2 AND L3 AND L4 AND L5 AND L6 D ALL 1-2
L10	0	SEA PLU=ON	L1 AND L2 AND L3 AND L4 AND L5 AND L6 AND L7 AND L8
L11	0	SEA PLU=ON	L1 AND L2 AND L3 AND L6 AND L7 AND L8
L12	1	SEA PLU=ON	L1 AND L2 AND L6 AND L7 AND L8 D ALL
L13	0	SEA PLU=ON	L1 AND L2 AND L3 AND L4 AND L5 AND L6 AND L7
L14	0	SEA PLU=ON	L1 AND L2 AND L5 AND L6 AND L7

FILE HOME

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file  
provided by InfoChem.

STRUCTURE FILE UPDATES: 20 JUN 2003 HIGHEST RN 534773-28-9  
DICTIONARY FILE UPDATES: 20 JUN 2003 HIGHEST RN 534773-28-9

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP  
PROPERTIES for more information. See STNote 27, Searching Properties  
in the CAS Registry File, for complete details:  
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> d cost full

FILE & COST CENTER	QUANTITY @	RATE	ESTIMATED COST U.S. DOLLARS
HOME FILE			
COST=			
CONNECT HOURS	0.01 @	15.00	0.15
INTERNET HOURS	0.01 @	6.00	0.06
REGISTRY FILE			
COST=			
CONNECT HOURS	0.10 @	34.00	3.40
INTERNET HOURS	0.10 @	6.00	0.60

DISPLAYS IN FORMAT ABS	3	@	1.34	4.02
DISPLAYS IN FORMAT BIB	3	@	0.96	2.88
DISPLAYS IN FORMAT IDE	3	@	1.68	5.04
DISPLAYS IN FORMAT IND	3	@	0.29	0.87
SEARCH TERMS IN FIELD MAC	8	@	4.22	33.76

SUMMARY BY FILE	AND	COST CENTER	HOURS	ESTIMATED COST
				U.S. DOLLARS
HOME FILE		(NONE)	0.01	0.21
REGISTRY FILE		(NONE)	0.10	50.57

COSTS INCLUDE TELECOMMUNICATION FEES	0.11	0.66
--------------------------------------	------	------

SUMMARY BY	COST CENTER	HOURS	ESTIMATED COST
		U.S. DOLLARS	
	(NONE)	0.11	50.78
YOUR TOTAL SESSION COSTS ARE		0.11	50.78

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
CA SUBSCRIBER PRICE	ENTRY	SESSION
	-1.86	-1.86

IN FILE 'REGISTRY' AT 13:47:48 ON 22 JUN 2003

=> log y

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
FULL ESTIMATED COST	ENTRY	SESSION
	50.57	50.78

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
CA SUBSCRIBER PRICE	ENTRY	SESSION
	-1.86	-1.86

STN INTERNATIONAL LOGOFF AT 13:47:56 ON 22 JUN 2003